

Trends in Hospital Utilization, 1982-83 to 1992-93

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In the early 1990s, Canadians were less likely to be hospitalized than they had been a decade before. And when they did enter hospital, their stays tended to be shorter. As well, hospitalization for surgical procedures was less frequent and required less time in hospital.

Nonetheless, a few patterns persisted throughout the decade. Females were more likely than males to be admitted to hospital — largely a reflection of obstetrical procedures — but females' average length of stay was slightly less than that of male patients. However, with advancing age, the likelihood of hospitalization and the duration of stays increased for both sexes.

Hospital separations down

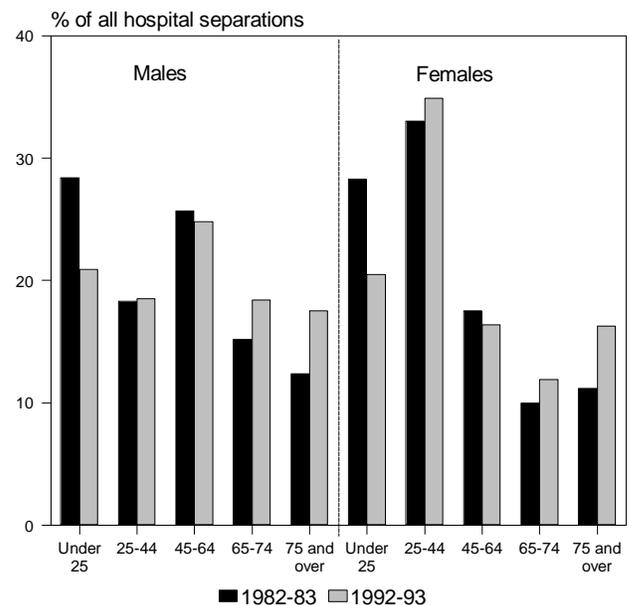
In 1992-93, general and allied special hospitals reported 3,561,194 separations (See *Data source and definitions*). This was down 2.4% from a year earlier and a 3.7% decrease from 1987-88, when the number had peaked at 3,698,664 (Table 1).

From 1982-83 to 1992-93, female patients made up the majority of hospital separations — an almost stable 58% annually. There was, however, a change in the age distribution of separations. The under-25 and 45 to 64 age groups accounted for declining proportions of both male and female separations, while the percentage attributable to people aged 65 and over increased. The 25 to 44 age group made up a relatively constant proportion of male separations, but a rising proportion of female separations (Chart 1).

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Chart 1

Age distribution of hospital separations, by sex, Canada, 1982-83 and 1992-93



A declining rate

The hospital separation rate, calculated per 100,000 population, declined more steeply than the total number of separations. In 1992-93, this rate was 12,966 per 100,000, a 4.0% drop from 13,482 the previous year and an 11.2% decline from 14,603 in 1982-83. In fact, over this period, the separation rate fell almost steadily.

Females were considerably more likely than males to be hospitalized. In 1992-93, the hospital separation rate for females was 14,901 per 100,000, compared with 10,976 for males. Both rates were down 11% since 1982-83.

Table 1**Major indicators of hospital utilization, by sex, Canada, 1982-83 to 1992-93**

Year		Separations		Patient-days		Average length of stay (days)
		Number	Per 100,000 population	Number	Per 100,000 population	
1982-83	Total	3,599,988	14,603	42,650,010	173,007	11.8
	Males	1,514,129	12,401	18,411,529	150,788	12.2
	Females	2,085,859	16,765	24,238,481	194,812	11.6
1983-84	Total	3,624,137	14,559	40,828,889	164,020	11.3
	Males	1,523,646	12,366	17,621,385	143,013	11.6
	Females	2,100,491	16,709	23,207,504	184,610	11.0
1984-85	Total	3,640,533	14,484	41,541,633	165,271	11.4
	Males	1,524,181	12,264	17,842,385	143,565	11.7
	Females	2,116,352	16,655	23,699,248	186,501	11.2
1985-86	Total	3,653,690	14,524	42,773,844	170,037	11.7
	Males	1,531,263	12,333	18,308,640	147,459	12.0
	Females	2,122,427	16,660	24,465,204	192,042	11.5
1986-87	Total	3,691,609	14,558	43,207,815	170,394	11.7
	Males	1,549,618	12,390	18,459,675	147,592	11.9
	Females	2,141,991	16,669	24,748,140	192,587	11.6
1987-88	Total	3,698,664	14,423	43,846,349	170,984	11.9
	Males	1,559,825	12,334	18,707,230	147,927	12.0
	Females	2,138,839	16,456	25,139,119	193,415	11.8
1988-89	Total	3,647,520	14,058	43,442,264	167,436	11.9
	Males	1,535,264	12,002	18,543,816	144,963	12.1
	Females	2,112,256	16,059	24,898,448	189,291	11.8
1989-90	Total	3,618,021	13,769	41,381,822	157,488	11.4
	Males	1,515,757	11,703	17,664,918	136,384	11.7
	Females	2,102,264	15,778	23,716,904	178,004	11.3
1990-91	Total	3,618,532	13,571	41,408,249	155,298	11.4
	Males	1,510,282	11,492	17,627,965	134,132	11.7
	Females	2,108,250	15,592	23,780,284	175,871	11.3
1991-92	Total	3,647,320	13,482	41,379,365	152,956	11.3
	Males	1,529,019	11,464	17,667,676	132,470	11.6
	Females	2,118,301	15,444	23,711,689	172,875	11.2
1992-93	Total	3,561,194	12,966	39,738,506	144,684	11.2
	Males	1,486,019	10,976	16,827,674	124,290	11.3
	Females	2,075,175	14,901	22,910,832	164,510	11.0

Age-specific separation rates were highest for men and women aged 65 and over (Chart 2). At age 45 and over, men's separation rate exceeded that of women. However, at ages 25 to 44, the separation rate of women was almost triple that of men, primarily because of obstetrical care.

Shorter stays

Patients spent an average of 11.2 days in hospital in 1992-93. Male patients' average length of stay slightly exceeded that of female patients: 11.3 versus 11.0 days. Both figures had dropped since 1982-83, although the decrease was slightly more for male (0.9 of a day) than for female (0.6 of a day) patients.

Generally, the older the patients, the longer their hospital stays. In 1992-93, the average for male patients ranged from 5.3 days for those under age 25 to 20.9 days at age 75 and over. For female patients, the corresponding range was from 4.4 days to 28.7 days (Chart 3).

From 1982-83 to 1992-93, the average length of hospital stay for both sexes fell for all age groups, with the largest decrease at age 75 and over: a 5.2-day decline for men and a 7.7-day decline for women. The extent of the decrease in length of stay diminished at younger ages.

Fewer days

The 3.6 million hospital separations in 1992-93 represented 39.7 million patient-days. This figure, too, was down from the previous year (4.0%) and from the 1987-88 peak (9.4%).

Just as the hospital separation rate declined since 1982-83, so did the number of patient-days per 100,000 population. By 1992-93, the latter was 144,684 per 100,000 population, a 16.4% decrease from 1982-83. During this period, the rate had fallen by 17.6% for males and 15.6% for females.

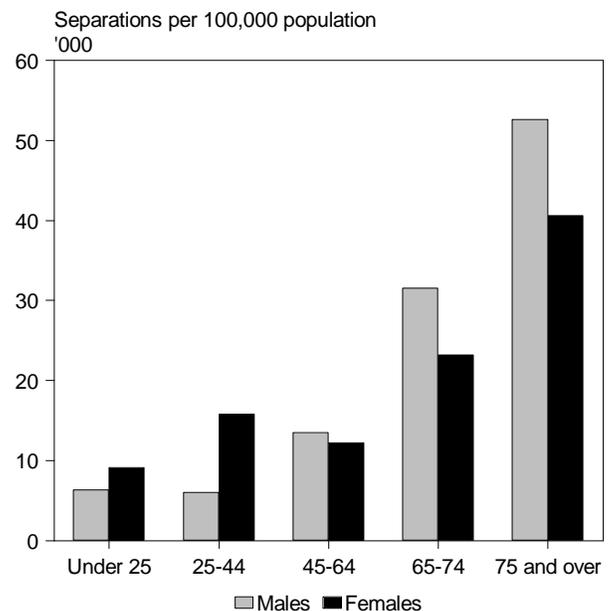
Overall, females accounted for more patient-days than did male patients. However, differences between the sexes were minor at all ages except 75 and over (Chart 4). The total number of patient-days for women in this age range was almost double that for men, due in part to women's greater longevity; most of these days were attributable to mental disorders, diseases of the circulatory system, and injury and poisoning.

Diagnoses differ

The diagnoses that most often resulted in hospitalization differed for male and female patients (Table 2). Among male patients, heart diseases accounted for the largest share of separations in 1992-93, followed by diseases of the digestive system and diseases of the respiratory system. For female patients, pregnancy and childbirth represented by far the largest proportion of separations — just over a quarter in 1992-93.

Chart 2

Age-specific hospital separation rates, by sex, Canada, 1992-93



The diagnoses that accounted for the highest proportions of separations did not necessarily translate into patient-days. Among female patients, for instance, pregnancy and childbirth represented just 8% of total patient-days. Similarly, for both sexes, mental disorders ranked second in the proportion of patient-days they consumed. However, as a percentage of total separations, mental disorders were not among the five leading diagnoses. On the other hand, for male patients, heart diseases accounted for the largest proportions of both separations and patient-days.

Less inpatient surgery

The declines in hospital separations, length of stay, and patient-days were paralleled by a decrease in surgical procedures. In 1992-93, hospital separations involving surgery numbered 1,736,353 down 2.9% from a year earlier and a 5.6% drop from the 1986-87 peak of 1,839,317 (Table 3). Some surgical procedures that formerly required hospitalization are now performed on an outpatient basis. As well, new medical techniques and pharmaceuticals may reduce the need for surgery.

Table 2

Five leading diagnoses, hospital separations and patient-days, by sex, 1992-93

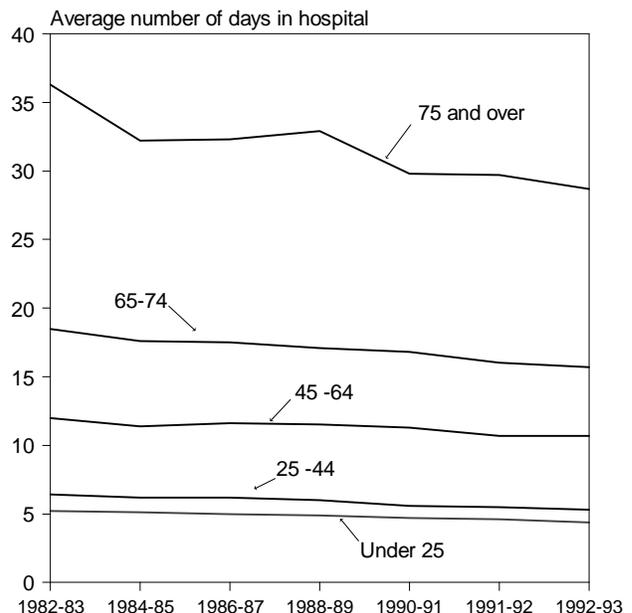
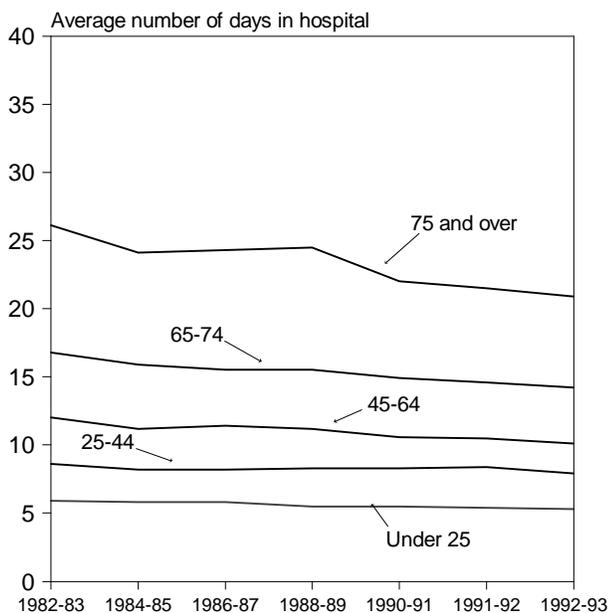
	Separations		Patient-days
Males			
Total	1,486,019	Total	16,827,674
%	100.0	%	100.0
Heart diseases	17.3	Heart diseases	20.3
Diseases of digestive system	13.9	Mental disorders	13.0
Diseases of respiratory system	12.5	Cancer	8.8
Injury and poisoning	10.5	Diseases of respiratory system	8.2
Cancer	7.1	Injury and poisoning	7.7
Sub-total	61.3	Subtotal	58.0
Females			
Total	2,075,175	Total	22,910,832
%	100.0	%	100.0
Pregnancy, childbirth	25.3	Heart diseases	17.0
Diseases of digestive system	10.1	Mental disorders	14.7
Heart diseases	9.9	Pregnancy, childbirth	8.1
Diseases of genitourinary system	7.7	Diseases of nervous system and sense organs	7.5
Diseases of respiratory system	7.7	Injury and poisoning	6.6
Subtotal	60.7	Subtotal	53.9

Chart 3

Average length of hospital stay, by age and sex, Canada, 1982-83 to 1992-93

Males

Females



Throughout the 1982-83 to 1992-93 period, just under half of all hospital separations involved surgery. Female separations were considerably more likely than male separations to involve surgery: 53.2% compared with 42.5% in 1992-93.

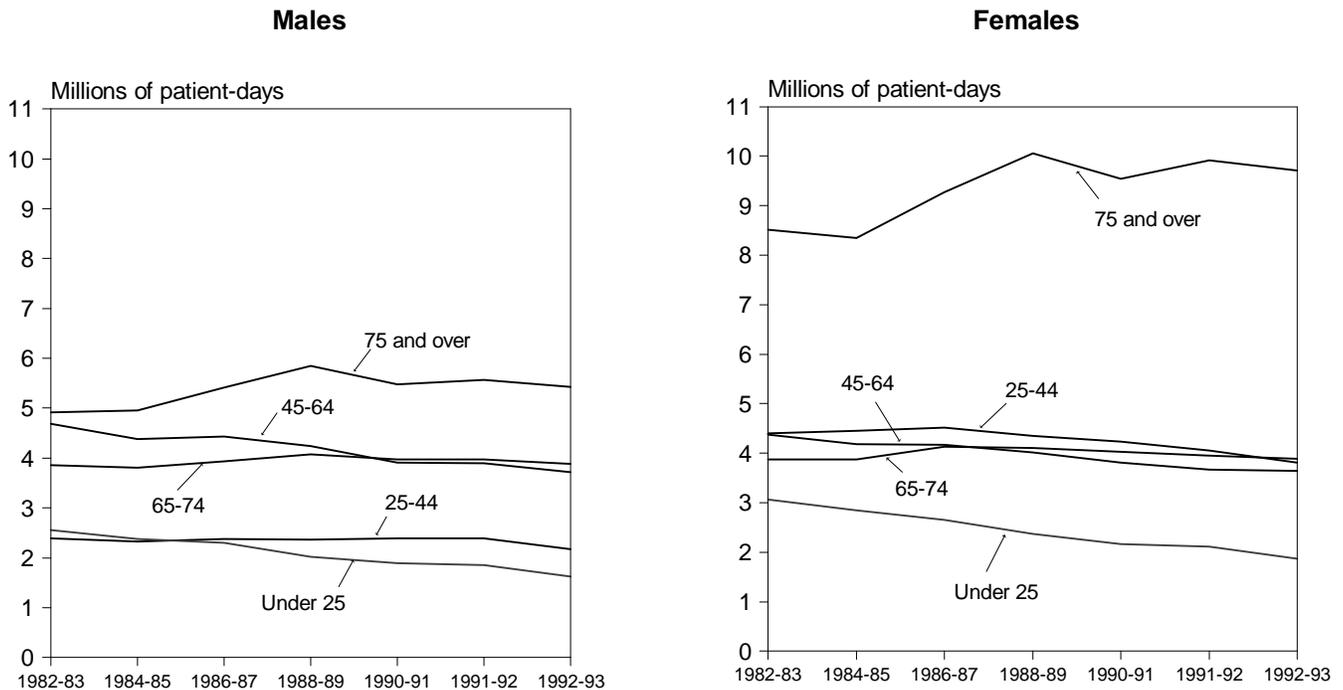
The greater likelihood of surgery among female patients is even more evident when it is expressed as a rate. In 1992-93, the number of separations with surgical procedures per 100,000 population was 7,928 for females, compared with 4,669 for males. Nonetheless, for both sexes, this was a 13% decline since 1982-83.

Different ages

The ages at which males and females are most likely to have surgery differ. In 1992-93, among men, the highest age-specific separation rates for surgical procedures were at age 75 and over and at ages 65 to 74, a pattern that has persisted since 1982-83 (Chart 5). For women, 1992-93 rates were highest at age 75 and over, followed by ages 25 to 44 (largely due to obstetrical procedures). This was a change from 1982-83, when women aged 25 to 44 had had the highest separation rate for surgical procedures.

Chart 4

Hospital patient-days, by age and sex, Canada, 1982-83 to 1992-93



Throughout the period, the 25 to 44 age group accounted for 43% to 47% of separations among female patients. The corresponding figures for male patients were 21% to 22% (Chart 6). The proportion of separations attributable to people under age 25 has fallen for both sexes by about 10 percentage points.

Less time for surgery

In 1992-93, the average length of stay for surgical procedures was substantially less than for hospital stays overall: 9.6 days for male and 7.5 days for female patients. Female patients accounted for 57.6% of total days for surgical procedures, and 18% of total female days were for obstetrical procedures.

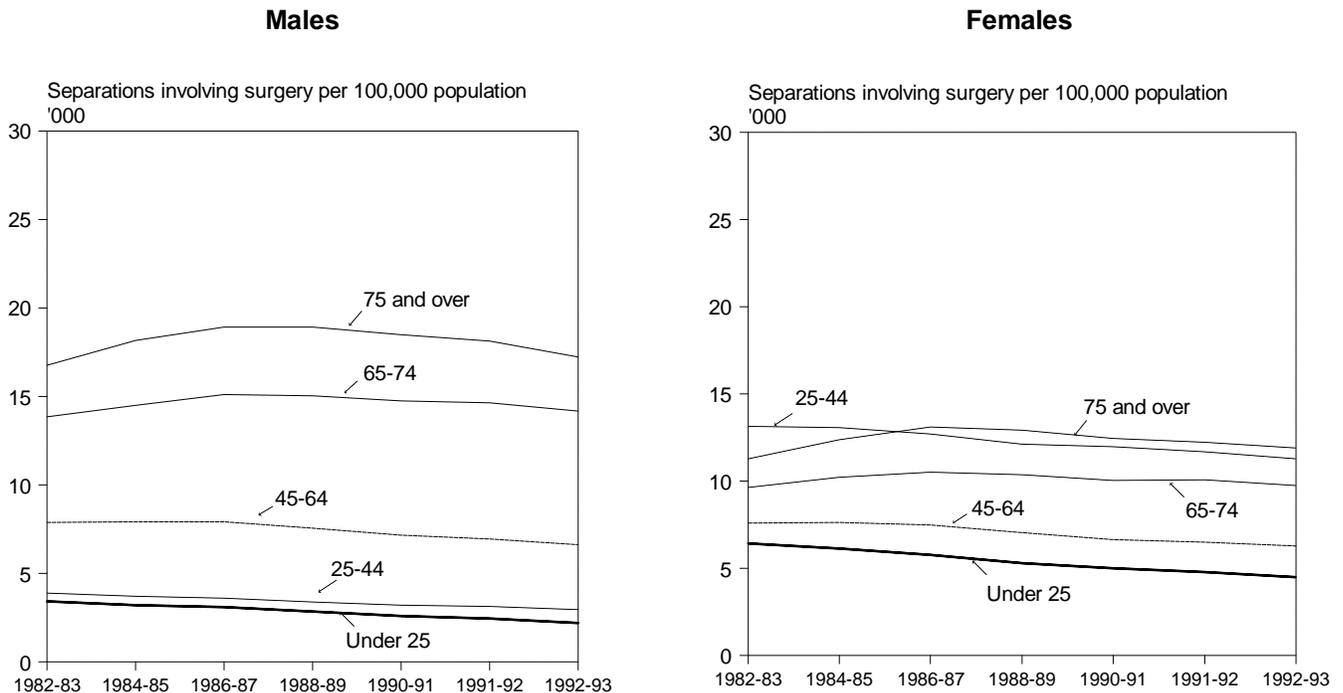
Table 3

Hospital separations involving surgical procedures, by sex, Canada, 1982-83 to 1992-93

		Number	Percentage of all separations	Per 100,000 population
			%	
1982-83	Total	1,791,029	49.8	7,265
	Males	658,237	43.5	5,391
	Females	1,132,792	54.3	9,105
1983-84	Total	1,821,527	50.3	7,318
	Males	666,451	43.7	5,409
	Females	1,155,076	55.0	9,188
1984-85	Total	1,830,098	50.3	7,281
	Males	666,852	43.8	5,366
	Females	1,163,246	55.0	9,154
1985-86	Total	1,830,331	50.1	7,276
	Males	668,421	43.7	5,383
	Females	1,161,910	54.7	9,120
1986-87	Total	1,839,317	49.8	7,254
	Males	677,385	43.7	5,416
	Females	1,161,932	54.2	9,042
1987-88	Total	1,835,716	49.6	7,159
	Males	680,322	43.6	5,380
	Females	1,155,394	54.0	8,889
1988-89	Total	1,809,419	49.6	6,974
	Males	669,483	43.6	5,234
	Females	1,139,936	54.0	8,666
1989-90	Total	1,788,561	49.4	6,807
	Males	656,291	43.3	5,067
	Females	1,132,270	53.9	8,498
1990-91	Total	1,802,762	49.8	6,761
	Males	660,120	43.7	5,023
	Females	1,142,642	54.2	8,451
1991-92	Total	1,787,501	49.0	6,607
	Males	654,825	42.8	4,910
	Females	1,132,676	53.5	8,258
1992-93	Total	1,736,353	48.8	6,322
	Males	632,191	42.5	4,669
	Females	1,104,162	53.2	7,928

Chart 5

Age-specific hospital separation rates involving surgical procedures, by sex, Canada, 1982-83 to 1992-93



Comparatively short stays meant that although surgical procedures represented close to half of all hospital separations, they accounted for a much lower proportion of total patient-days — 36% for both sexes.

For males, the three categories of surgical procedure with the highest separation rates for 1992-93 were digestive system and abdominal region, musculoskeletal system, and cardio-vascular system (Table 4). Among females, the rate was highest for obstetrical procedures. The next highest female rates were for the digestive system and abdominal region, and genital organs.

National level only

These trends in hospital separations, surgical procedures, length of stay, and days of care apply at the national level only. National trends tend to be affected by what is happening in the larger provinces. Additionally, health care policies and practices vary from province to province and even from one municipality to another. Differences in these conditions would be reflected in data for individual provinces.

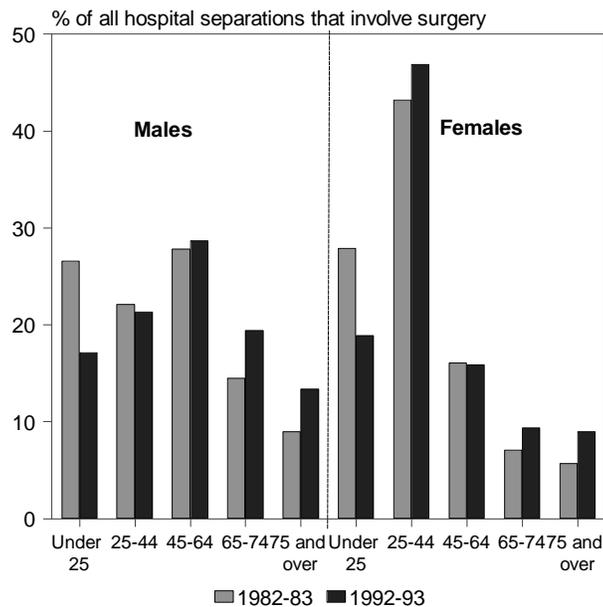
Table 4

Hospital separation rates involving surgical procedures, by sex and category of procedure, Canada, 1992-93

Males	Per 100,000 population	Females	Per 100,000 population
Digestive system and abdominal region	1,170	Obstetrical procedures	2,875
Musculoskeletal system	864	Digestive system and abdominal region	1,145
Cardiovascular system	716	Genital organs	1,099
Genital organs	424	Musculoskeletal system	805
Nose, mouth and pharynx	358	Cardiovascular system	429
Urinary tract	293	Nose, mouth and pharynx	318
Nervous system	183	Breast	255
Eyes	174	Eyes	230
Respiratory system	171	Urinary tract	209
Skin and subcutaneous tissue	162	Nervous system	157
Hemic and lymphatic system	73	Skin and subcutaneous tissue	142
Ears	56	Respiratory system	106
Endocrine system	15	Hemic and lymphatic system	63
Breast	10	Ears	48
		Endocrine system	46

Chart 6

Age distribution of hospital separations involving surgical procedures, by sex, 1982-83 and 1992-93



Data source and definitions

The source of these data is the admission/separation forms completed by hospitals, which record one continuous stay for each patient. Statistics Canada receives this information on computer files from the provincial health ministries. The data do not cover the Yukon and Northwest Territories.

At the end of each stay, the patient is separated as a discharge or death, or is transferred to another institution. Because a patient may be admitted to and discharged from a hospital several times a year, the statistics are a count of cases rather than individual patients. Annual figures refer to the April to March fiscal year.

The statistics are from acute care, convalescence, and chronic hospitals. Cases treated as outpatients and patients in mental hospitals are excluded. Patients treated in psychiatric units of general and allied special hospitals are included. Newborns are excluded; information on newborns is available on request.

The published figures provide a count of cases separated from hospital by primary diagnosis and most significant surgical procedure.

Hospital: An institution operated for the medical, surgical, and obstetrical care of inpatients, and which is licensed or approved as a hospital by federal, provincial, or municipal governments, the latter being authorized under the laws of the province.

Inpatient: A person who has been admitted to a hospital for medical reasons and hospital services, and who has been assigned an inpatient bed.

Outpatient: A person who was formally accepted by a hospital, and who received diagnostic and therapeutic services without being admitted as an inpatient.

Patient-day: The period of service to an inpatient between the census-taking hours on two successive days; the day of admission is counted as a patient-day, but the day of separation is not.

Separation: The discharge or death of an inpatient. The frequency counts show individual cases separated, not persons separated.

More detailed data at the national and provincial levels is available in **Hospital morbidity and surgical procedures, 1992-93**, Catalogue 82-217. To order, see page 66.